

CLAIMS

1. A linking element (101, 201, 201') for a spinal fixation system (100, 200), designed to link at least two implantable connecting assemblies (102, 202, 202'), characterized in that it is composed, at least partly, of a support (160, 260) made of polymer material and of a rod (170, 270), curved or not, substantially coaxial with said support (160, 260).

2. The linking element (101, 201, 201') as claimed in claim 1, characterized in that said support (160, 260) has a substantially tubular or cylindrical shape.

3. A linking element (101, 201, 201'), characterized in that it additionally comprises a helical spring (150, 250) having an axis substantially parallel with the axis (165, 265) of said support (160, 260) and turns (152, 252), said turns being at least partly embedded in said support (160, 260).

4. The linking element (101, 201, 201') as claimed in claim 3, characterized in that said rod (170, 270) is substantially coaxial with said spring (150, 250).

5. The linking element (101, 201, 201') as

claimed in claim 3 or claim 4, characterized in that said rod (170, 270) has an external diameter (171, 271) smaller than the internal diameter (153, 253) of said turns (152, 252).

6. The linking element (101, 201, 201') as claimed in any one of claims 1 through 5, characterized in that it comprises a straight or curved stiffening element (143, 143').

7. The linking element (101, 201, 201') as claimed in claim 6, characterized in that said stiffening element (143, 143') is composed of a sheet of material with a substantially U-shaped cross section.

8. A spinal fixation system (100, 200) comprising at least two implantable connecting assemblies (102, 202, 202') linked by at least one linking element (101, 201, 201') as claimed in any one of claims 1 through 7, said linking element (101, 201, 201') being composed, at least partly, of a support (160, 260) made of polymer material and of a rod (170, 270), curved or not, substantially coaxial with said support (160, 260).

9. The spinal fixation system (100, 200) as claimed in claim 8, characterized in that said stiffening element (143, 143') is fixed at least to the two implantable

connecting assemblies (102, 202, 202').

10. The spinal fixation system (100, 200) as claimed in claim 8 or claim 9, characterized in that it additionally comprises at least one rigid linking element (145, 245).